IEEE P802.11
Wireless LANs

|  |
| --- |
| 11bi D1.0 Resolution of a few comments on clause 9 |
| Date: 2025-03-10 |
| Author(s): |
| Name | Affiliation | Address | Phone | Email |
| Domenico Ficara | Cisco |  |  | dficara@cisco.com |
| Ugo Campiglio | Cisco |  |  | ucampigl@cisco.com |
| Javier Contreras | Cisco |  |  | jacontre@cisco.com |
| Jerome Henry | Cisco |  |  | jhenry@cisco.com |
| Federico Lovison | Cisco |  |  | flovison@cisco.com |

Abstract

This submission resolves the following CIDs:

 36, 37, 56, 57, 58, 59, 60, 215, 216, 307, 333, 420, 452, 454, 480, 481, 482, 484, 485, 486, 487, 488, 507, 509, 793, 794, 856, 860, 1007, 1022, 1023

Revisions:

* Rev 0: Initial version of the document.
* Rev 1: fixed a typo
* Rev 2: fixed document reference
* Rev 3: Improved comment resolution with inputs by Po-Kai
* Rev 4: Further improvements (following baseline examples) for AID List Value with inputs from Po-Kai

***Editing instructions formatted like this are intended to be copied into the TGbi D1.0 Draft. (i.e. they are instructions to the 802.11 editor on how to merge the text with the baseline documents). TGbi Editor: Editing instructions preceded by “TGbi Editor” are instructions to the TGbi editor to modify existing material in the TGbi draft. As a result of adopting the changes, the TGbi editor will execute the instructions rather than copy them to the TGbi Draft.***

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **CID** | **Clause** | **P.L** | **Comment** | **Proposed Change** | **Resolution** |
| 36 | 9.4.1.83 | 49.28 | "When transmitted by a CPE AP, the AID Storage Size field indicates the minimum number of AID values..." "indicates should be "value indicates" | edit cited text as follows: "When transmitted by a CPE AP, the AID Storage Size field value indicates the minimum number of AID values..." | Rejected –We note that in the baseline we have 672 instances of “field indicates” and only 11 instances of “field value indicate”. “field indicate” is sufficient based on the style of the baseline  |
| 37 | 9.4.1.83 | 49.32 | "When transmitted by a CPE non-AP MLD, the AID Storage Size field indicates the number of AID values..." "indicates should be "value indicates" | edit cited text as follows: "When transmitted by a CPE non-AP MLD, the AID Storage Size field value indicates the number of AID values..." | Rejected –We note that in the baseline we have 672 instances of “field indicates” and only 11 instances of “field value indicate”. “field indicate” is sufficient based on the style of the baseline |
| 56 | 9.4.2.350 | 62.65 | "The Group ID field signals an identifier of the EDP group". " Indicates" not "signals" | At cited location replace "signals" with "indicates" | Revised – As per comment #215, the group ID is redundant, as a non-AP MLD can only operate within to a single group.TGbi Editor, please implement changes tagged #215 in document 11-25-477  |
| 57 | 9.4.2.350 | 63.1 | "The Start Epoch (SE) field is the 2 least significant octets of the EDP epoch iteration in which the first AID of the AID List Value field is used. Such EDP epoch iteration is relative to the EDP group identified by the Group ID field." Is "iteration" tjhe right word here? I think the idea is that this is simply the start epoch, for the AID List Value field. If so then say so. | Replace cited text with "The Start Epoch (SE) field is the 2 least significant octets of the EDP epoch of the epoch corresponding to the AID for SE field in the AID List Value field." | Accepted -  |
| 58 | 9.4.2.350 | 63.17 | "The format of the AID List Value Field is shown in Figure 9-1074dt (AID List Value field)." Let's be consistent,. Also Field is lower case. | Replace cited text with "The AID List Value field format is shown in Figure 9-1074dt (AID List Value field). AND move it ahead of the Figure to line 6. | Accepted –  |
| 59 | 9.4.2.350 | 63.15 | "Figure 9-1074dt--AID List Value field". Should be field format | At cited loocation, insert "format" at end of figure title | Accepted –  |
| 60 | 9.4.2.350 | 63.20 | "The Number of Epochs (NE) field indicates..." Should be "field value". | At cited location insert "value" after "field" | Rejected –We note that in the baseline we have 672 instances of “field indicates” and only 11 instances of “field value indicate”. “field indicate” is sufficient based on the style of the baseline |
| 215 | 9.4.2.350 | 63.4 | There is no need to have group ID present in the AID List element, because a non-AP MLD may operate only in a single Epoch. | Please remove Group ID from the AID List element. | Accepted –  |
| 216 | 9.4.2.350 | 63.24 | The AID List Value figure 9-1074dt is incorrect. Please change the figure to include the fields as described in the normative text. | Please correct the figure. | Revised - The format to AID List Value field has been updated as part of resolution of comments #488, #333, #487 and #485. TGbi Editor, please implement changes tagged #488, #333, #487 and #485 in 11-25-477. |
| 307 | 9.4.1.9 | 45.36 | I do not fully understand the difference between (Table 9-80) SUCCESS\_AID\_LIST\_PARTIALLY\_STORED and FAILURE\_AID\_STORAGE\_TOO\_SMALL. Is the difference that in the second case, no AID is stored? Then what is the difference with FAILURE\_AID\_LIST\_NOT\_STORED? | as in the comment | Revised – Agree in principle with the commenter.We clarified that FAILURE\_AID\_LIST\_NOT\_STORED is a Status Code value to use for AID assignment operation, while FAILURE\_AID\_STORAGE\_TOO\_SMALL is used at EDP group join.TGbi Editor, please implement changes tagged #307 in 11-25-477. |
| 333 | 9.4.2.350 | 63.24 | Clarify sentence: "The AID field is present for the Number of Epochs (NE)." | Change to: "An AID for SE(+x) field is present for each epoch up to the Number of Epochs field value." | Revised –Combined this comment resolution with #488, using the text proposed in #488 as it appears simpler.  |
| 420 | 9.4.1.9 | 45.36 | Although the tag for this value says SUCCESS\_, the description doesn't make it clear it's to be considered as success (cf. 145 above) | As it says in the comment | Revised – Added a sentence to clarify that this is a successful operation outcomeTGbi Editor, please implement changes tagged #420 in document 11-25-477. |
| 452 |  |  | "Number of Stored AIDs" -- fields should have every word starting uppercase | Change to "Number Of Stored AIDs" throughout | Accepted –  |
| 454 | 9.4.1.85 | 50.15 | "The Number of Stored AIDs field indicates the number of AIDs from the AID List Value field that the non-AP MLD has stored." -- no antecedent | Delete "from the AID List Value field " | Accepted –  |
| 480 | 9.4.2.350 | 62.47 | "AID List Element" should be "AID List element" | As it says in the comment | Accepted –  |
| 481 | 9.4.2.350 | 62.65 | "The Group ID field signals an identifier of the EDP group." is too waffly for the vagueness | Change to "The Group ID field identifies an EDP group." | Revised –As per resolution of CID #215, the Group ID is redundant and can hence be removed.  |
| 482 | 9.4.2.350 | 62.52 | "Start Epoch (SE)" -- no need for abbreviation in field name | Change to "Start Epoch" here and at 63.1 | Accepted –  |
| 484 | 9.4.2.350 | 63 | "Number of Epochs (NE)" -- no need for abbreviation in field name, but also should be uppercase first letter | Change to "Number Of Epochs" 3x on this page and also at 93.20 | Accepted –  |
| 485 | 9.4.2.350 | 63.9 | "AID for SE+ NE -1 " is not a good field name. Also bad case for "for" | Change first one to "AID For Start Epoch", delete second one, change last one to "AID For Final Epoch" | Revised – Agree in principle with the reviewer. In fact, it’s simpler and in line with baseline to simply have a n x 12bits column named “AID12s”.TGbi Editor, please implement changes tagged #485 in document 11-25-477. |
| 486 | 9.4.2.350 | 63.2 | "Such EDP epoch iteration is relative to the EDP group identified by the Group ID field." is not clear | As it says in the comment | Revised –As per resolution of CID #215, the Group ID is redundant and can hence be removed.TGbi Editor, please implement changes tagged #215 in document 11-25-477. |
| 487 | 9.4.2.350 | 63.2 | The Number Of Epochs field should not be part of the AID List Value field, it should be immediately after the Start Epoch field in the Figure 9-1074ds--AID List element | As it says in the comment | Revised – TGbi Editor, please implement changes tagged #487 in document 11-25-477 and also update figure 9-1074dt. |
| 488 | 9.4.2.350 | 63.23 | "The AID field is present for the Number of Epochs (NE). " is not clear | Change to "There are Number Of Epochs AID fields." | Revised – Using the proposed sentence and extended with additional details. |
| 507 | 9.6.42.9 | 73.58 | "The AID Assignment frame is transmitted as a protected management frame by a CPE AP." but EDP Action frames are already defined to be robust | Delete "as a protected management frame", and make sure that MFP is mandatory | Accepted –  |
| 509 | 9.6.42.10 | 74.60 | "The Number of Stored AIDs field is defined in 9.4.1.85 (Number of Stored AIDs field) and is present if the Status Code field is equal to SUCCESS\_AID\_LIST\_PARTIALLY\_STORED, to indicate the number of AIDs that the CPE non-AP MLD has stored" missing "; otherwise not present" | As it says in the comment | Accepted –  |
| 793 | 9.4.2.350 | 63.1 | The text refers to the EDP epoch iteration in a manner that it suggests that it is a known parameter, but the only two uses of "EDP epoch iteration" in the document are in this paragraph. Also, the text in 10.71.2.4 defines a variable n to represent the epoch as a 2 byte value; referring to the least significant 2 octets seems to suggest a longer value is used. | Revise text to indicate the specific parameter that the Start Epoch refers to. (Epoch number is not a parameter, but is a value that may be intended here.) | Revised – Comment is resolved by resolution of comment #57 |
| 794 | 9.4.2.350 | 63.2 | The text says "Such EDP epoch iteration is relative to the EDP group identified by the Group ID field.", but it is not clear how the iteration and the group are related. What might be meant instead is that the EDP epoch number is specific to a group. | Revise sentence to "The EDP epoch numbers are specific to each EDP group which are identified by the Group ID field." | Revised –As per resolution of CID #215, the Group ID is redundant and can hence be removed. |
| 856 | 9.4.2.350 | 63.1 | The Start Epoch field is a confusing name. It would be better to harmonize with the name in the EDP Epoch settings field | Please replace "Start Epoch" with "Epoch Start time" | Rejected – This is a Epoch number, hence its measurement unit is “Epoch”, whereas Start Time would be measured in seconds/ticks/etc… |
| 860 | 9.6.42.9 | 73.56 | Please modify the title of the subclause with "AID Assignment request frame format" for clarification. | As in comment | Accepted –  |
| 1007 | 9.4.2.350 | 62.43 | This element is used with frame anonymization, but this is not clear from the description | Append "for frame anonymization" to the end of this sentence | Accepted –  |
| 1022 | 9.6.42.9 | 73.59 | This frame as transmitted as part of the setup for frame anonymization, but this is not clear from the text. Also AP should be non-AP MLD | Replace "by a CPE AP" with "by non-AP MLD as part of setting up frame anonymization for a non-AP MLD". | Revised – Added “"by non-AP MLD as part of setting up frame anonymization” TGbi Editor, please implement changes tagged #1022 in document 11-25-477. |
| 1023 | 9.6.42.9 | 73.65 | This sentence is between a table caption and the corresponding table. | Move sentence before caption or after table. | Rejected – It seems this is the word processor formatting the position of this sentence according to where it positions the table. Not appearing in the copied text.  |

***Proposal:***

**TGbi Editor: *Instruction: Modify the relative rows of table 9-80 in 9.4.1.9 as shown below***

* Status code field

***Insert the following new rows to Table 9-80 while maintaining the numerical order and updating the reserved range (not all lines shown):***

* Status codes

|  |  |  |
| --- | --- | --- |
| Status code | Name | Meaning |
| … |  |  |
| 148 | SUCCESS\_AID\_LIST\_PARTIALLY\_STORED | (#420)The AID assignment operation is successful but the AID List is too large and the CPE non-AP MLD has stored it only partially.  |
| 149 | FAILURE\_AID\_LIST\_NOT\_STORED | The AID assignment operation has failed(#307). No AID value has been stored. |
| 150 | FAILURE\_AID\_STORAGE\_TOO\_SMALL | The request to join or create a group epoch has failed, because the AID storage of the non-AP MLD is too small |

**TGbi Editor: *Instruction: Modify the 9.4.1.85 as shown below***

* Number Of Stored AIDs field(#452)

The Number Of Stored (#452)AIDs field indicates the number of AIDs (#454)that the non-AP MLD has stored.

The format of the Number Of Stored AIDs field is shown in Figure 9-207p (Number Of Stored AIDs field format) (#452)

|  |  |
| --- | --- |
|  | Number Of Stored AIDs(#452) |
| Bits: | 16 |

.

* Number Of Stored AIDs field format(#452)

**TGbi Editor: *Instruction: Modify the 9.4.2.350 as shown below***

* AID List element

The AID List element contains a sequence of AID values for the receiving EDP non-AP MLD to use in a sequence of contiguous EDP epochs for frame anonymization(#1007)

The format of the AID List element(#480) is shown in Figure 9-1074ds (AID List element).

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Element ID | Length | Element ID Extension | Start Epoch(#482) | Number Of Epochs(#484, #487) | AID List Value |
| Octets: | 1 | 1 | 1 | 2 | 2 (#487) | variable |

* AID List element(#215)

The Element ID, Length and Element ID Extension fields are defined in 9.4.2.1 (General).

(#215)

The Start Epoch(#482) field is the 2 least significant octets of the EDP epoch corresponding to the AID for Start Epoch field in the AID List Value field. (#57)(#215)

The Number Of Epochs(#484) field (#60) indicates the number, n, of consecutive epochs for which AID fields are provided.

The AID List Value field format is shown in Figure 9-1074dt (AID List Value field).(#58)

|  |  |  |
| --- | --- | --- |
|  | AID12s(#485) | Padding |
| Bits | n x 12 | 0 or 4 |

* AID List Value field format (#59, #485)

There are Number Of Epochs AID12 fields (#488)

Each AID12 field is 12 bits and indicates the 12 LSBs of an AID assigned to an epoch. The ith AID12 field is the AID for the ith epoch of the consecutive epochs.

A Padding field is optionally present to align the field to octet limits.

**TGbi Editor: *Instruction: Modify the 9.6.42.9 as shown below***

* AID Assignment request frame format(#860)

The AID Assignment frame is transmitted(#507) by a non-AP MLD as part of setting up frame anonymization (#1022). The frame assigns AID values to the receiving CPE STA for the coming epochs.

|  |  |
| --- | --- |
| Order | Meaning |
| 0 | Category |
| 1 | EDP Action |
| 2 | Dialog Token |
| 3 | AID List |

* AID Assignment request frame format(#860)

The Category field is defined in 9.4.1.11 (Action field).

The EDP Action field is defined in 9.6.42.1 (EDP Action field).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and is set to a nonzero value to identify the request/response transaction.

The AID List element is defined in 9.4.2.350 (AID List element).

**TGbi Editor: *Instruction: Modify the 9.6.42.10 as shown below***

* AID Assignment Response frame format

The format of the AID Assignment response frame is shown in 9-658af (AID Assignment Response frame format).

|  |  |
| --- | --- |
| Order | Meaning |
| 0 | Category |
| 1 | EDP Action |
| 2 | Dialog Token |
| 3 | Status Code |
| 4 | Number Of Stored AIDs(#452) |

* AID Assignment Response frame format

The Category field is defined in 9.4.1.11 (Action field).

The EDP Action field is defined in 9.6.42.1 (EDP Action field).

The Dialog Token field is defined in 9.4.1.12 (Dialog Token field) and is set to a nonzero value to identify the request/response transaction.

The Status Code field indicates the result of the AID assignment request and is defined in 9.4.1.9 (Status code field).

The Number Of Stored AIDs(#452) field is defined in 9.4.1.85 (Number Of Stored AIDs(#452) field) and is present if the Status Code field is equal to SUCCESS\_AID\_LIST\_PARTIALLY\_STORED, to indicate the number of AIDs that the CPE non-AP MLD has stored; otherwise not present (#509)